

BAB 6

KESIMPULAN DAN SARAN

6.1. Kesimpulan

Kesimpulan yang dapat diambil dari tugas akhir ini adalah :

- a. Diperoleh waktu baku untuk masing-masing operasi dengan nilai sesuai tabel 5.3.
- b. Pada penjadwalan usulan ditetapkan ukuran lot sebesar 50 unit
- c. Formula yang didapatkan untuk menghitung minimum *due date* adalah sebagai berikut :

- i. Jika material siap, maka minimum *due date* didapatkan dengan

$$\text{Minimum } due\ date = 8 \text{ hari} + \left(\frac{(\text{Jumlah lot} - 1) \cdot 13 \text{ jam}}{15 \text{ jam/hari}} \right)$$

- ii. Jika material belum ada :

$$\text{Minimum } due\ date = 13 \text{ hari} + \left(\frac{(\text{Jumlah lot} - 1) \cdot 13 \text{ jam}}{15 \text{ jam/hari}} \right)$$

6.2. Saran

- a. Untuk *order* selanjutnya sebaiknya PT. ATMI Surakarta menggunakan prosedur penjadwalan dengan ukuran lot 50 supaya dapat meminimalisir terjadinya keterlambatan,
- b. Untuk *order* baru, sebaiknya dihitung terlebih dahulu minimum *due date* *order* tersebut sesuai kondisi saat itu apakah material sudah tersedia atau tidak dan dinegosiasikan dengan *customer* supaya tidak terjadi keterlambatan.

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Lampiran 1. Besar Kelonggaran Berdasarkan Faktor yang Berpengaruh

Faktor	Contoh pekerjaan	Ekuivalen Beban	Kelonggaran (%)	
			Pria	Wanita
A. Tenaga yang dikeluarkan				
1. Dapat diabaikan	Bekerja di meja, duduk	Tanpa beban	0,0-6,0	0,0-6,0
2. Sangat ringan	Bekerja di meja, berdiri	0,00-2,25 kg	6,0-7,5	6,0-7,5
3. Ringan	Menyekop, ringan	2,25-9,00	7,5-12,0	7,5-16,0
4. Sedang	Mencangkul	9,00-18,00	12,0-19,0	16,0-30,0
5. Berat	Mengayun palu yang berat	18,00-27,00	19,0-30,0	
6. Sangat berat	Memanggul beban	27,00-50,00	30,0-50,0	
7. Luar biasa berat	Memanggul karung berat	Diatas 50 kg		
B. Sikap kerja				
1. Duduk	Bekerja duduk, ringan		0,00-1,00	
2. Berdiri diatas dua kaki	Badan tegak, ditumpu 2 kaki		1,0-2,5	
3. Berdiri diatas satu kaki	Satu kaki mengerjakan alat control		2,5-4,0	
4. Berbaring	Pada bagian sisi, belakang atau depan badan		2,5-4,0	
5. membungkuk	Badan dibungkukkan bertumpu pada kedua kaki		4,0-10,0	
C. Gerakan kerja				
1. Normal	Ayunan bebas dari palu		0	
2. Agak terbatas	Ayunan terbatas dari palu		0-5	
3. Sulit	Membawa beban berat dengan satu tangan		0-5	
4. Pada anggota-anggota badan terbatas	Bekerja dengan tangan di atas kepala		5-10	
5. Seluruh anggota badan terbatas	Bekerja di lorong pertambangan yang sempit		10-15	

Lanjutan lampiran 1

Faktor	Contoh pekerjaan	Ekuivalen Beban	Kelonggaran (%)	Faktor
D. Kelelahan mata			<u>Pencahayaan baik</u>	<u>Buruk</u>
1. Pandangan yang terputus-putus	Membawa alat ukur		0,0-6,0	0,0-6,0
2. Pandangan yang hampir terus-menerus	Pekerjaan-pekerjaan yang teliti		6,0-7,5	6,0-7,5
3. Pandangan terus-menerus dengan fokus tetap.	Pekerjaan-pekerjaan yang sangat teliti		7,5-12,0	7,5-16,0
4. Pandangan terus-menerus dengan fokus berubah-ubah	Memeriksa cacat pada kain		12,0-19,0	16,0-30,0
5. Pandangan terus-menerus dengan konsentrasi tinggi dan fokus tetap			19,0-30,0	
6. Pandangan terus-menerus dengan konsentrasi tinggi dan fokus berubah-ubah				30,0-50,0
E. Keadaan suhu tempat kerja		Suhu (°C)	<u>Kelelahan normal</u>	<u>Berlebihan</u>
1. Beku		Dibawah 0	Diatas 10	Diatas 12
2. Rendah		0-13	10-0	12-5
3. Sedang		13-22	5-0	8-0
4. Normal		22-28	0-5	0-8
5. Tinggi		28-38	5-40	8-100
6. Sangat tinggi		Diatas 38	Diatas 40	Diatas 100

Lampiran 2. Data Pemesanan Produk Sidewall Support

Data Pesanan Produk Sidewall Suport			
No	Order	Tanggal Order	Jumlah Pesanan
1	EODC 130054	04-Feb-13	100
2	EODC 130137	25-Apr-13	610
3	EODC 130294	10-Sep-13	1100
4	EODC 140005	06-Feb-14	750
5	EODC 140072	14-Apr-14	890
6	EODC 14 0150	23-Jul-14	1050



Lampiran 3. Penjadwalan dengan ukuran lot 130

FACING 1							
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty	
SETUP CLAMPING	1	7:00:00	0:24:36	7:24:36	31:24:36	0	DAY 1
RUN	7	7:24:36	1:00:47	8:25:23	32:25:23	7	
IP	1	8:25:23	0:15:00	8:45:00	8:45:00	0	
RUN	22	8:45:00	3:11:02	11:56:02	11:56:02	22	
IS	1	11:56:02	0:30:00	12:30:00	12:30:00	0	
RUN	38	12:30:00	5:29:58	17:59:58	17:59:58	38	
IM	1	17:59:58	0:30:00	18:30:00	18:30:00	0	
RUN	24	18:30:00	3:28:24	21:58:24	21:58:24	24	
OFF	1	21:58:24	9:00:00	7:00:00	7:00:00	0	
RUN	10	7:00:00	1:26:50	8:26:50	8:26:50	10	
IP	1	8:26:50	0:15:00	8:45:00	8:45:00	0	DAY 2
RUN	22	8:45:00	3:11:02	11:56:02	11:56:02	22	
IS	1	11:56:02	0:30:00	12:30:00	12:30:00	0	
RUN	7	12:30:00	1:00:47	13:30:47	13:30:47	7	
KIRIM	1	13:30:47	0:01:32	13:32:19	13:32:19	0	
RUN	30	13:32:19	4:20:30	17:52:49	17:52:49	30	
IM	1	17:52:49	0:30:00	18:30:00	18:30:00	0	
RUN	24	18:30:00	3:28:24	21:58:24	21:58:24	24	
OFF	1	21:58:24	9:00:00	7:00:00	7:00:00	0	
RUN	10	7:00:00	1:26:50	8:26:50	8:26:50	10	DAY 3
IP	1	8:26:50	0:15:00	8:45:00	8:45:00	0	
RUN	22	8:45:00	3:11:02	11:56:02	11:56:02	22	
IS	1	11:56:02	0:30:00	12:30:00	12:30:00	0	
RUN	38	12:30:00	5:29:58	17:59:58	17:59:58	38	
IM	1	17:59:58	0:30:00	18:30:00	18:30:00	0	
RUN	6	18:30:00	0:52:06	19:22:06	19:22:06	6	
KIRIM	1	19:22:06	0:01:32	19:23:38	19:23:38	0	
RUN	18	19:23:38	2:36:18	21:59:56	21:59:56	18	
OFF	1	21:59:56	9:00:00	7:00:00	7:00:00	0	
RUN	10	7:00:00	1:26:50	8:26:50	8:26:50	10	DAY 4
IP	1	8:26:50	0:15:00	8:45:00	8:45:00	0	
RUN	22	8:45:00	3:11:02	11:56:02	11:56:02	22	
IS	1	11:56:02	0:30:00	12:30:00	12:30:00	0	
RUN	38	12:30:00	5:29:58	17:59:58	17:59:58	38	
IM	1	17:59:58	0:30:00	18:30:00	18:30:00	0	
RUN	24	18:30:00	3:28:24	21:58:24	21:58:24	24	
OFF	1	21:58:24	9:00:00	7:00:00	7:00:00	0	
RUN	10	7:00:00	1:26:50	8:26:50	8:26:50	10	
IP	1	8:26:50	0:15:00	8:45:00	8:45:00	0	
RUN	8	8:45:00	1:09:28	9:54:28	9:54:28	8	DAY 5
KIRIM	1	9:54:28	0:01:32	9:56:00	9:56:00	0	
RUN	14	9:56:00	2:01:34	11:57:34	11:57:34	14	
IS	1	11:57:34	0:30:00	12:30:00	12:30:00	0	
RUN	36	12:30:00	5:12:36	17:42:36	17:42:36	36	
KIRIM	1	17:42:36	0:01:32	17:44:08	17:44:08	0	

Lampiran 3. Lanjutan

DEBUR 1								
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty		
RUN	110	13:32:19	4:27:40	17:59:59	17:59:59	110	110	DAY 2
IM	1	17:59:59	0:30:00	18:30:00	18:30:00	0	110	
RUN	20	18:30:00	0:48:40	19:18:40	19:18:40	20	130	
KIRIM	1	19:18:40	0:01:32	19:20:12	19:20:12	0	130	
RUN	64	19:23:38	2:35:44	21:59:22	21:59:22	64	194	DAY 3
OFF	1	21:59:22	9:00:00	7:00:00	7:00:00	0	194	
RUN	36	7:00:00	1:27:36	8:27:36	8:27:36	36	230	DAY 4
IP	1	8:27:36	0:15:00	8:45:00	8:45:00	0	230	
RUN	30	8:45:00	1:13:00	9:58:00	9:58:00	30	260	
KIRIM	1	9:58:00	0:01:32	9:59:32	9:59:32	0	260	
RUN	50	9:56:00	2:01:40	11:57:40	11:57:40	50	310	DAY 5
IS	1	11:57:40	0:30:00	12:30:00	12:30:00	0	310	
RUN	80	12:30:00	3:14:40	15:44:40	15:44:40	80	390	
KIRIM	1	15:44:40	0:01:32	15:46:12	15:46:12	0	390	
RUN	6	17:44:08	0:14:36	17:58:44	17:58:44	6	396	DAY 5
IM	1	17:58:44	0:30:00	18:30:00	18:30:00	0	396	
RUN	44	18:30:00	1:47:04	20:17:04	20:17:04	44	440	
KIRIM	1	20:17:04	0:01:32	20:18:36	20:18:36	0	440	

Lampiran 3. Lanjutan

FACING 2							
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty	
SETUP CLAMPING	1	19:20:12	0:04:24	19:24:36	19:24:36	0	DAY 2
RUN	17	19:24:36	2:31:35	21:56:11	21:56:11	17	
OFF	1	21:56:11	9:00:00	7:00:00	7:00:00	0	
RUN	10	7:00:00	1:29:10	8:29:10	8:29:10	10	DAY 3
IP	1	8:29:10	0:15:00	8:45:00	8:45:00	0	
RUN	21	8:45:00	3:07:15	11:52:15	11:52:15	21	
IS	1	11:52:15	0:30:00	12:30:00	12:30:00	0	
RUN	37	12:30:00	5:29:55	17:59:55	17:59:55	37	
IM	1	17:59:55	0:30:00	18:30:00	18:30:00	0	
RUN	23	18:30:00	3:25:05	21:55:05	21:55:05	23	
OFF	1	21:55:05	9:00:00	7:00:00	7:00:00	0	DAY 4
RUN	10	7:00:00	1:29:10	8:29:10	8:29:10	10	
IP	1	8:29:10	0:15:00	8:45:00	8:45:00	0	
RUN	12	8:45:00	1:47:00	10:32:00	10:32:00	12	
KIRIM	1	10:32:00	0:01:32	10:33:32	10:33:32	0	
RUN	9	10:33:32	1:20:15	11:53:47	11:53:47	9	
IS	1	11:53:47	0:30:00	12:30:00	12:30:00	0	
RUN	37	12:30:00	5:29:55	17:59:55	17:59:55	37	DAY 5
IM	1	17:59:55	0:30:00	18:30:00	18:30:00	0	
RUN	23	18:30:00	3:25:05	21:55:05	21:55:05	23	
OFF	1	21:55:05	9:00:00	7:00:00	7:00:00	0	
RUN	10	7:00:00	1:29:10	8:29:10	8:29:10	10	
IP	1	8:29:10	0:15:00	8:45:00	8:45:00	0	
RUN	21	8:45:00	3:07:15	11:52:15	11:52:15	21	
IS	1	11:52:15	0:30:00	12:30:00	12:30:00	0	DAY 6
RUN	30	12:30:00	4:27:30	16:57:30	16:57:30	30	
KIRIM	1	16:57:30	0:01:32	16:59:02	16:59:02	0	
RUN	6	16:59:02	0:53:30	17:52:32	17:52:32	6	
IM	1	17:52:32	0:30:00	18:30:00	18:30:00	0	
RUN	23	18:30:00	3:25:05	21:55:05	21:55:05	23	
OFF	1	21:55:05	9:00:00	7:00:00	7:00:00	0	
RUN	10	7:00:00	1:29:10	8:29:10	8:29:10	10	DAY 7
IP	1	8:29:10	0:15:00	8:45:00	8:45:00	0	
RUN	21	8:45:00	3:07:15	11:52:15	11:52:15	21	
IS	1	11:52:15	0:30:00	12:30:00	12:30:00	0	
RUN	37	12:30:00	5:29:55	17:59:55	17:59:55	37	
IM	1	17:59:55	0:30:00	18:30:00	18:30:00	0	
RUN	23	18:30:00	3:25:05	21:55:05	21:55:05	23	
OFF	1	21:55:05	9:00:00	7:00:00	7:00:00	0	DAY 8
RUN	10	7:00:00	1:29:10	8:29:10	8:29:10	10	
IP	1	8:29:10	0:15:00	8:45:00	8:45:00	0	
KIRIM	1	8:45:00	0:01:32	8:46:32	8:46:32	0	
RUN	21	8:46:32	3:07:15	11:53:47	11:53:47	21	
IS	1	11:53:47	0:30:00	12:30:00	12:30:00	0	
RUN	29	12:30:00	4:18:35	16:48:35	16:48:35	29	
KIRIM	1	16:48:35	0:01:32	16:50:07	16:50:07	0	

Lampiran 3. Lanjutan

DEBUR 2								
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty		
RUN	34	10:33:32	1:23:18	11:56:50	11:56:50	34	34	DAY 4
IS	1	11:56:50	0:30:00	12:30:00	12:30:00	0	34	
RUN	96	12:30:00	3:55:12	16:25:12	16:25:12	96	130	
KIRIM	1	16:25:12	0:01:32	16:26:44	16:26:44	0	130	
RUN	24	16:59:02	0:58:48	17:57:50	17:57:50	24	154	DAY 5
IM	1	17:57:50	0:30:00	18:30:00	18:30:00	0	154	
RUN	85	18:30:00	3:28:15	21:58:15	21:58:15	85	239	
OFF	1	21:58:15	9:00:00	7:00:00	7:00:00	0	239	
RUN	21	7:00:00	0:51:27	7:51:27	7:51:27	21	260	DAY 6
KIRIM	1	7:51:27	0:01:32	7:52:59	7:52:59	0	260	
RUN	78	8:46:32	3:11:06	11:57:38	11:57:38	78	338	DAY 7
IS	1	11:57:38	0:30:00	12:30:00	12:30:00	0	338	
RUN	52	12:30:00	2:07:24	14:37:24	14:37:24	52	390	
KIRIM	1	14:37:24	0:01:32	14:38:56	14:38:56	0	390	
RUN	28	16:50:07	1:08:36	17:58:43	17:58:43	28	418	DAY 7
IM	1	17:58:43	0:30:00	18:30:00	18:30:00	0	418	
RUN	22	18:30:00	0:53:54	19:23:54	19:23:54	22	440	
KIRIM	1	19:23:54	0:01:32	19:25:26	19:25:26	0	440	

Lampiran 3. Lanjutan

STEP								
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty		
SETUP CLAMPING	1	16:26:44	0:02:54	16:29:38	16:29:38	0		
RUN	10	16:29:38	1:25:30	17:55:08	17:55:08	10	10	DAY 4
IM	1	17:55:08	0:30:00	18:30:00	18:30:00	0	10	
RUN	24	18:30:00	3:25:12	21:55:12	21:55:12	24	34	
OFF	1	21:55:12	9:00:00	7:00:00	7:00:00	0	34	
RUN	10	7:00:00	1:25:30	8:25:30	8:25:30	10	44	DAY 5
IP	1	8:25:30	0:15:00	8:45:00	8:45:00	0	44	
RUN	22	8:45:00	3:08:06	11:53:06	11:53:06	22	66	
IS	1	11:53:06	0:30:00	12:30:00	12:30:00	0	66	
RUN	38	12:30:00	5:24:54	17:54:54	17:54:54	38	104	
IM	1	17:54:54	0:30:00	18:30:00	18:30:00	0	104	
RUN	24	18:30:00	3:25:12	21:55:12	21:55:12	24	128	
OFF	1	21:55:12	9:00:00	7:00:00	7:00:00	0	128	
RUN	2	7:00:00	0:17:06	7:17:06	7:17:06	2	130	DAY 6
KIRIM	1	7:17:06	0:01:32	7:18:38	7:18:38	0	130	
RUN	4	7:52:59	0:34:12	8:27:11	8:27:11	4	134	DAY 6
IP	1	8:27:11	0:15:00	8:45:00	8:45:00	0	134	
RUN	22	8:45:00	3:08:06	11:53:06	11:53:06	22	156	
IS	1	11:53:06	0:30:00	12:30:00	12:30:00	0	156	
RUN	38	12:30:00	5:24:54	17:54:54	17:54:54	38	194	
IM	1	17:54:54	0:30:00	18:30:00	18:30:00	0	194	
RUN	24	18:30:00	3:25:12	21:55:12	21:55:12	24	218	
OFF	1	21:55:12	9:00:00	7:00:00	7:00:00	0	218	
RUN	10	7:00:00	1:25:30	8:25:30	8:25:30	10	228	DAY 7
IP	1	8:25:30	0:15:00	8:45:00	8:45:00	0	228	
RUN	22	8:45:00	3:08:06	11:53:06	11:53:06	22	250	
IS	1	11:53:06	0:30:00	12:30:00	12:30:00	0	250	
RUN	10	12:30:00	1:25:30	13:55:30	13:55:30	10	260	
KIRIM	1	13:55:30	0:01:32	13:57:02	13:57:02	0	260	
RUN	23	14:38:56	3:16:39	17:55:35	17:55:35	23	283	DAY 7
IM	1	17:55:35	0:30:00	18:30:00	18:30:00	0	283	
RUN	24	18:30:00	3:25:12	21:55:12	21:55:12	24	307	
OFF	1	21:55:12	9:00:00	7:00:00	7:00:00	0	307	
RUN	10	7:00:00	1:25:30	8:25:30	8:25:30	10	317	DAY 8
IP	1	8:25:30	0:15:00	8:45:00	8:45:00	0	317	
RUN	22	8:45:00	3:08:06	11:53:06	11:53:06	22	339	
IS	1	11:53:06	0:30:00	12:30:00	12:30:00	0	339	
RUN	38	12:30:00	5:24:54	17:54:54	17:54:54	38	377	
IM	1	17:54:54	0:30:00	18:30:00	18:30:00	0	377	
RUN	13	18:30:00	1:51:09	20:21:09	20:21:09	13	390	
KIRIM	1	20:21:09	0:01:32	20:22:41	20:22:41	0	390	
RUN	11	20:22:41	1:34:03	21:56:44	21:56:44	11	401	DAY 9
OFF	1	21:56:44	9:00:00	7:00:00	7:00:00	0	401	
RUN	10	7:00:00	1:25:30	8:25:30	8:25:30	10	411	
IP	1	8:25:30	0:15:00	8:45:00	8:45:00	0	411	
RUN	22	8:45:00	3:08:06	11:53:06	11:53:06	22	433	
IS	1	11:53:06	0:30:00	12:30:00	12:30:00	0	433	
RUN	7	12:30:00	0:59:51	13:29:51	13:29:51	7	440	
KIRIM	1	13:29:51	0:01:32	13:31:23	13:31:23	0	440	

Lampiran 3. Lanjutan

DEBUR 3								
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty		
RUN	17	7:18:38	1:09:25	8:28:03	8:28:03	17	17	DAY 6
IP	1	8:28:03	0:15:00	8:45:00	8:45:00	0	17	
RUN	47	8:45:00	3:11:55	11:56:55	11:56:55	47	64	
IS	1	11:56:55	0:30:00	12:30:00	12:30:00	0	64	
RUN	66	12:30:00	4:29:30	16:59:30	16:59:30	66	130	
KIRIM	1	16:59:30	0:01:32	17:01:02	17:01:02	0	130	
RUN	59	13:57:02	4:00:55	17:57:57	17:57:57	59	189	DAY 7
IM	1	17:57:57	0:30:00	18:30:00	18:30:00	0	189	
RUN	51	18:30:00	3:28:15	21:58:15	21:58:15	51	240	
OFF	1	21:58:15	9:00:00	7:00:00	7:00:00	0	240	
RUN	20	7:00:00	1:21:40	8:21:40	8:21:40	20	260	DAY 8
KIRIM	1	8:21:40	0:01:32	8:23:12	8:23:12	0	260	
RUN	23	20:22:41	1:33:55	21:56:36	21:56:36	23	283	DAY 8
OFF	1	21:56:36	9:00:00	7:00:00	7:00:00	0	283	
RUN	22	7:00:00	1:29:50	8:29:50	8:29:50	22	305	DAY 9
IP	1	8:29:50	0:15:00	8:45:00	8:45:00	0	305	
RUN	47	8:45:00	3:11:55	11:56:55	11:56:55	47	352	
IS	1	11:56:55	0:30:00	12:30:00	12:30:00	0	352	
RUN	38	12:30:00	2:35:10	15:05:10	15:05:10	38	390	
KIRIM	1	15:05:10	0:01:32	15:06:42	15:06:42	0	390	
RUN	42	15:06:42	2:51:30	17:58:12	17:58:12	42	432	
IM	1	17:58:12	0:30:00	18:30:00	18:30:00	0	432	
RUN	8	18:30:00	0:32:40	19:02:40	19:02:40	8	440	
KIRIM	1	19:02:40	0:01:32	19:04:12	19:04:12	0	440	

Lampiran 3. Lanjutan

DRILLING								
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty		
RUN	5	17:01:02	0:52:10	17:53:12	17:53:12	5	5	DAY 6
IM	1	17:53:12	0:30:00	18:30:00	18:30:00	0	5	
RUN	20	18:30:00	3:28:40	21:58:40	21:58:40	20	25	
OFF	1	21:58:40	9:00:00	7:00:00	7:00:00	0	25	
RUN	8	7:00:00	1:23:28	8:23:28	8:23:28	8	33	DAY 7
IP	1	8:23:28	0:15:00	8:45:00	8:45:00	0	33	
RUN	18	8:45:00	3:07:48	11:52:48	11:52:48	18	51	
IS	1	11:52:48	0:30:00	12:30:00	12:30:00	0	51	
RUN	31	12:30:00	5:23:26	17:53:26	17:53:26	31	82	DAY 8
IM	1	17:53:26	0:30:00	18:30:00	18:30:00	0	82	
RUN	20	18:30:00	3:28:40	21:58:40	21:58:40	20	102	
OFF	1	21:58:40	9:00:00	7:00:00	7:00:00	0	102	
RUN	8	7:00:00	1:23:28	8:23:28	8:23:28	8	110	DAY 9
IP	1	8:23:28	0:15:00	8:45:00	8:45:00	0	110	
RUN	18	8:45:00	3:07:48	11:52:48	11:52:48	18	128	
IS	1	11:52:48	0:30:00	12:30:00	12:30:00	0	128	
RUN	2	12:30:00	0:20:52	12:50:52	12:50:52	2	130	DAY 10
KIRIM	1	12:50:52	0:01:32	12:52:24	12:52:24	0	130	
RUN	29	12:52:24	5:02:34	17:54:58	17:54:58	29	159	
IM	1	17:54:58	0:30:00	18:30:00	18:30:00	0	159	
RUN	20	18:30:00	3:28:40	21:58:40	21:58:40	20	179	DAY 11
OFF	1	21:58:40	9:00:00	7:00:00	7:00:00	0	179	
RUN	8	7:00:00	1:23:28	8:23:28	8:23:28	8	187	
IP	1	8:23:28	0:15:00	8:45:00	8:45:00	0	187	
RUN	18	8:45:00	3:07:48	11:52:48	11:52:48	18	205	DAY 12
IS	1	11:52:48	0:30:00	12:30:00	12:30:00	0	205	
RUN	31	12:30:00	5:23:26	17:53:26	17:53:26	31	236	
IM	1	17:53:26	0:30:00	18:30:00	18:30:00	0	236	
RUN	20	18:30:00	3:28:40	21:58:40	21:58:40	20	256	DAY 13
OFF	1	21:58:40	9:00:00	7:00:00	7:00:00	0	256	
RUN	4	7:00:00	0:41:44	7:41:44	7:41:44	4	260	
KIRIM	1	7:41:44	0:01:32	7:43:16	7:43:16	0	260	
RUN	4	7:43:16	0:41:44	8:25:00	8:25:00	4	264	DAY 14
IP	1	8:25:00	0:15:00	8:45:00	8:45:00	0	264	
RUN	18	8:45:00	3:07:48	11:52:48	11:52:48	18	282	
IS	1	11:52:48	0:30:00	12:30:00	12:30:00	0	282	
RUN	31	12:30:00	5:23:26	17:53:26	17:53:26	31	313	DAY 15
IM	1	17:53:26	0:30:00	18:30:00	18:30:00	0	313	
RUN	20	18:30:00	3:28:40	21:58:40	21:58:40	20	333	
OFF	1	21:58:40	9:00:00	7:00:00	7:00:00	0	333	
RUN	8	7:00:00	1:23:28	8:23:28	8:23:28	8	341	DAY 16
IP	1	8:23:28	0:15:00	8:45:00	8:45:00	0	341	
RUN	18	8:45:00	3:07:48	11:52:48	11:52:48	18	359	
IS	1	11:52:48	0:30:00	12:30:00	12:30:00	0	359	
RUN	31	12:30:00	5:23:26	17:53:26	17:53:26	31	390	DAY 17
KIRIM	1	17:53:26	0:01:32	17:54:58	17:54:58	0	390	
IM	1	17:54:58	0:30:00	18:30:00	18:30:00	0	390	
RUN	20	18:30:00	3:28:40	21:58:40	21:58:40	20	410	
OFF	1	21:58:40	9:00:00	7:00:00	7:00:00	0	410	DAY 18
RUN	8	7:00:00	1:23:28	8:23:28	8:23:28	8	418	
IP	1	8:23:28	0:15:00	8:45:00	8:45:00	0	418	
RUN	18	8:45:00	3:07:48	11:52:48	11:52:48	18	436	
IS	1	11:52:48	0:30:00	12:30:00	12:30:00	0	436	DAY 19
RUN	4	12:30:00	0:41:44	13:11:44	13:11:44	4	440	
KIRIM	1	13:11:44	0:01:32	13:13:16	13:13:16	0	440	

Lampiran 3. Lanjutan

CHAMFERING								
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty		
RUN	130	12:52:24	3:04:10	15:56:34	15:56:34	130	130	DAY 8
KIRIM	1	15:56:34	0:01:32	15:58:06	15:58:06	0	130	
RUN	32	7:43:16	0:45:20	8:28:36	8:28:36	32	162	DAY 10
IP	1	8:28:36	0:15:00	8:45:00	8:45:00	0	162	
RUN	98	8:45:00	2:18:50	11:03:50	11:03:50	98	260	
KIRIM	1	11:03:50	0:01:32	11:05:22	11:05:22	0	260	
RUN	130	17:54:58	3:04:10	20:59:08	20:59:08	130	390	DAY 11
KIRIM	1	20:59:08	0:01:32	21:00:40	21:00:40	0	390	
RUN	50	13:13:16	1:10:50	14:24:06	14:24:06	50	440	DAY 12
KIRIM	1	14:24:06	0:01:32	14:25:38	14:25:38	0	440	

Lampiran 3. Lanjutan

WELDING 1								
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty		
RUN	16	15:58:06	1:54:56	17:53:02	17:53:02	16	16	DAY 8
IM	1	17:53:02	0:30:00	18:30:00	18:30:00	0	16	
RUN	29	18:30:00	3:28:19	21:58:19	21:58:19	29	45	
OFF	1	21:58:19	9:00:00	7:00:00	7:00:00	0	45	
RUN	12	7:00:00	1:26:12	8:26:12	8:26:12	12	57	DAY 9
IP	1	8:26:12	0:15:00	8:45:00	8:45:00	0	57	
RUN	27	8:45:00	3:13:57	11:58:57	11:58:57	27	84	
IS	1	11:58:57	0:30:00	12:30:00	12:30:00	0	84	
RUN	45	12:30:00	5:23:15	17:53:15	17:53:15	45	129	
IM	1	17:53:15	0:30:00	18:30:00	18:30:00	0	129	
RUN	1	18:30:00	0:07:11	18:37:11	18:37:11	1	130	
KIRIM	1	18:37:11	0:01:32	18:38:43	18:38:43	0	130	
RUN	7	11:05:22	0:50:17	11:55:39	11:55:39	7	137	DAY 10
IS	1	11:55:39	0:30:00	12:30:00	12:30:00	0	137	
RUN	45	12:30:00	5:23:15	17:53:15	17:53:15	45	182	
IM	1	17:53:15	0:30:00	18:30:00	18:30:00	0	182	
RUN	29	18:30:00	3:28:19	21:58:19	21:58:19	29	211	
OFF	1	21:58:19	9:00:00	7:00:00	7:00:00	0	211	DAY 11
RUN	12	7:00:00	1:26:12	8:26:12	8:26:12	12	223	
IP	1	8:26:12	0:15:00	8:45:00	8:45:00	0	223	
RUN	27	8:45:00	3:13:57	11:58:57	11:58:57	27	250	
IS	1	11:58:57	0:30:00	12:30:00	12:30:00	0	250	
RUN	10	12:30:00	1:11:50	13:41:50	13:41:50	10	260	
KIRIM	1	13:41:50	0:01:32	13:43:22	13:43:22	0	260	
RUN	8	21:00:40	0:57:28	21:58:08	21:58:08	8	268	DAY 11
OFF	1	21:58:08	9:00:00	7:00:00	7:00:00	0	268	DAY 12
RUN	12	7:00:00	1:26:12	8:26:12	8:26:12	12	280	
IP	1	8:26:12	0:15:00	8:45:00	8:45:00	0	280	
RUN	27	8:45:00	3:13:57	11:58:57	11:58:57	27	307	
IS	1	11:58:57	0:30:00	12:30:00	12:30:00	0	307	
RUN	45	12:30:00	5:23:15	17:53:15	17:53:15	45	352	
IM	1	17:53:15	0:30:00	18:30:00	18:30:00	0	352	
RUN	29	18:30:00	3:28:19	21:58:19	21:58:19	29	381	
OFF	1	21:58:19	9:00:00	7:00:00	7:00:00	0	381	
RUN	9	7:00:00	1:04:39	8:04:39	8:04:39	9	390	
KIRIM	1	8:04:39	0:01:32	8:06:11	8:06:11	0	390	DAY 13
RUN	3	8:06:11	0:21:33	8:27:44	8:27:44	3	393	
IP	1	8:27:44	0:15:00	8:45:00	8:45:00	0	393	
RUN	27	8:45:00	3:13:57	11:58:57	11:58:57	27	420	
IS	1	11:58:57	0:30:00	12:30:00	12:30:00	0	420	
RUN	20	12:30:00	2:23:40	14:53:40	14:53:40	20	440	
KIRIM	1	14:53:40	0:01:32	14:55:12	14:55:12	0	440	

Lampiran 3. Lanjutan

WELDING 2								
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty		
RUN	16	18:38:43	3:18:56	21:57:39	21:57:39	16	16	DAY 9
OFF	1	21:57:39	9:00:00	7:00:00	7:00:00	0	16	
RUN	7	7:00:00	1:27:02	8:27:02	8:27:02	7	23	
IP	1	8:27:02	0:15:00	8:45:00	8:45:00	0	23	DAY 10
RUN	15	8:45:00	3:06:30	11:51:30	11:51:30	15	38	
IS	1	11:51:30	0:30:00	12:30:00	12:30:00	0	38	
RUN	26	12:30:00	5:23:16	17:53:16	17:53:16	26	64	
IM	1	17:53:16	0:30:00	18:30:00	18:30:00	0	64	
RUN	16	18:30:00	3:18:56	21:48:56	21:48:56	16	80	
OFF	1	21:48:56	9:00:00	7:00:00	7:00:00	0	80	
RUN	7	7:00:00	1:27:02	8:27:02	8:27:02	7	87	DAY 11
IP	1	8:27:02	0:15:00	8:45:00	8:45:00	0	87	
RUN	15	8:45:00	3:06:30	11:51:30	11:51:30	15	102	
IS	1	11:51:30	0:30:00	12:30:00	12:30:00	0	102	
RUN	26	12:30:00	5:23:16	17:53:16	17:53:16	26	128	
IM	1	17:53:16	0:30:00	18:30:00	18:30:00	0	128	
RUN	2	18:30:00	0:24:52	18:54:52	18:54:52	2	130	
KIRIM	1	18:54:52	0:01:32	18:56:24	18:56:24	0	130	DAY 12
RUN	14	18:56:24	2:54:04	21:50:28	21:50:28	14	144	
OFF	1	21:50:28	9:00:00	7:00:00	7:00:00	0	144	
RUN	7	7:00:00	1:27:02	8:27:02	8:27:02	7	151	
IP	1	8:27:02	0:15:00	8:45:00	8:45:00	0	151	
RUN	15	8:45:00	3:06:30	11:51:30	11:51:30	15	166	
IS	1	11:51:30	0:30:00	12:30:00	12:30:00	0	166	
RUN	26	12:30:00	5:23:16	17:53:16	17:53:16	26	192	DAY 13
IM	1	17:53:16	0:30:00	18:30:00	18:30:00	0	192	
RUN	16	18:30:00	3:18:56	21:48:56	21:48:56	16	208	
OFF	1	21:48:56	9:00:00	7:00:00	7:00:00	0	208	
RUN	7	7:00:00	1:27:02	8:27:02	8:27:02	7	215	
IP	1	8:27:02	0:15:00	8:45:00	8:45:00	0	215	
RUN	15	8:45:00	3:06:30	11:51:30	11:51:30	15	230	
IS	1	11:51:30	0:30:00	12:30:00	12:30:00	0	230	DAY 14
RUN	26	12:30:00	5:23:16	17:53:16	17:53:16	26	256	
IM	1	17:53:16	0:30:00	18:30:00	18:30:00	0	256	
RUN	4	18:30:00	0:49:44	19:19:44	19:19:44	4	260	
KIRIM	1	19:19:44	0:01:32	19:21:16	19:21:16	0	260	
RUN	12	19:21:16	2:29:12	21:50:28	21:50:28	12	272	
OFF	1	21:50:28	9:00:00	7:00:00	7:00:00	0	272	
RUN	7	7:00:00	1:27:02	8:27:02	8:27:02	7	279	DAY 15
IP	1	8:27:02	0:15:00	8:45:00	8:45:00	0	279	
RUN	15	8:45:00	3:06:30	11:51:30	11:51:30	15	294	
IS	1	11:51:30	0:30:00	12:30:00	12:30:00	0	294	
RUN	26	12:30:00	5:23:16	17:53:16	17:53:16	26	320	
IM	1	17:53:16	0:30:00	18:30:00	18:30:00	0	320	
RUN	16	18:30:00	3:18:56	21:48:56	21:48:56	16	336	
OFF	1	21:48:56	9:00:00	7:00:00	7:00:00	0	336	DAY 16
RUN	7	7:00:00	1:27:02	8:27:02	8:27:02	7	343	
IP	1	8:27:02	0:15:00	8:45:00	8:45:00	0	343	
RUN	15	8:45:00	3:06:30	11:51:30	11:51:30	15	358	
IS	1	11:51:30	0:30:00	12:30:00	12:30:00	0	358	
RUN	26	12:30:00	5:23:16	17:53:16	17:53:16	26	384	
IM	1	17:53:16	0:30:00	18:30:00	18:30:00	0	384	
RUN	6	18:30:00	1:14:36	19:44:36	19:44:36	6	390	DAY 16
KIRIM	1	19:44:36	0:01:32	19:46:08	19:46:08	0	390	
RUN	10	19:46:08	2:04:20	21:50:28	21:50:28	10	400	
OFF	1	21:50:28	9:00:00	7:00:00	7:00:00	0	400	
RUN	7	7:00:00	1:27:02	8:27:02	8:27:02	7	407	
IP	1	8:27:02	0:15:00	8:45:00	8:45:00	0	407	
RUN	15	8:45:00	3:06:30	11:51:30	11:51:30	15	422	
IS	1	11:51:30	0:30:00	12:30:00	12:30:00	0	422	DAY 16
RUN	18	12:30:00	3:43:48	16:13:48	16:13:48	18	440	
KIRIM	1	16:13:48	0:01:32	16:15:20	16:15:20	0	440	

Lampiran 3. Lanjutan

FINISHING							
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty	
RUN	20	18:56:24	3:00:20	21:56:44	21:56:44	20	DAY 11
OFF	1	21:56:44	9:00:00	7:00:00	7:00:00	0	
RUN	9	7:00:00	1:21:09	8:21:09	8:21:09	9	DAY 12
IP	1	8:21:09	0:15:00	8:45:00	8:45:00	0	
RUN	21	8:45:00	3:09:21	11:54:21	11:54:21	21	
IS	1	11:54:21	0:30:00	12:30:00	12:30:00	0	
RUN	36	12:30:00	5:24:36	17:54:36	17:54:36	36	
IM	1	17:54:36	0:30:00	18:30:00	18:30:00	0	
RUN	23	18:30:00	3:27:23	21:57:23	21:57:23	23	
OFF	1	21:57:23	9:00:00	7:00:00	7:00:00	0	DAY 13
RUN	9	7:00:00	1:21:09	8:21:09	8:21:09	9	
IP	1	8:21:09	0:15:00	8:45:00	8:45:00	0	
RUN	12	8:45:00	1:48:12	10:33:12	10:33:12	12	
KIRIM	1	10:33:12	0:01:32	10:34:44	10:34:44	0	
RUN	17	19:21:16	2:33:17	21:54:33	21:54:33	17	DAY 13
OFF	1	21:54:33	9:00:00	7:00:00	7:00:00	0	
RUN	9	7:00:00	1:21:09	8:21:09	8:21:09	9	DAY 14
IP	1	8:21:09	0:15:00	8:45:00	8:45:00	0	
RUN	21	8:45:00	3:09:21	11:54:21	11:54:21	21	
IS	1	11:54:21	0:30:00	12:30:00	12:30:00	0	
RUN	36	12:30:00	5:24:36	17:54:36	17:54:36	36	
IM	1	17:54:36	0:30:00	18:30:00	18:30:00	0	
RUN	23	18:30:00	3:27:23	21:57:23	21:57:23	23	
OFF	1	21:57:23	9:00:00	7:00:00	7:00:00	0	DAY 15
RUN	9	7:00:00	1:21:09	8:21:09	8:21:09	9	
IP	1	8:21:09	0:15:00	8:45:00	8:45:00	0	
RUN	15	8:45:00	2:15:15	11:00:15	11:00:15	15	
KIRIM	1	11:00:15	0:01:32	11:01:47	11:01:47	0	
RUN	14	19:46:08	2:06:14	21:52:22	21:52:22	14	DAY 15
OFF	1	21:52:22	9:00:00	7:00:00	7:00:00	0	
RUN	9	7:00:00	1:21:09	8:21:09	8:21:09	9	DAY 16
IP	1	8:21:09	0:15:00	8:45:00	8:45:00	0	
RUN	21	8:45:00	3:09:21	11:54:21	11:54:21	21	
IS	1	11:54:21	0:30:00	12:30:00	12:30:00	0	
RUN	36	12:30:00	5:24:36	17:54:36	17:54:36	36	
IM	1	17:54:36	0:30:00	18:30:00	18:30:00	0	
RUN	23	18:30:00	3:27:23	21:57:23	21:57:23	23	
OFF	1	21:57:23	9:00:00	7:00:00	7:00:00	0	DAY 17
RUN	9	7:00:00	1:21:09	8:21:09	8:21:09	9	
IP	1	8:21:09	0:15:00	8:45:00	8:45:00	0	
RUN	18	8:45:00	2:42:18	11:27:18	11:27:18	18	
KIRIM	1	11:27:18	0:01:32	11:28:50	11:28:50	0	
RUN	3	11:28:50	0:27:03	11:55:53	11:55:53	3	
IS	1	11:55:53	0:30:00	12:30:00	12:30:00	0	
RUN	36	12:30:00	5:24:36	17:54:36	17:54:36	36	
IM	1	17:54:36	0:30:00	18:30:00	18:30:00	0	
RUN	11	18:30:00	1:39:11	20:09:11	20:09:11	11	
KIRIM	1	20:09:11	0:01:32	20:10:43	20:10:43	0	

Lampiran 4. Penjadwalan dengan ukuran lot 100

FACING 1							
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty	
SETUP CLAMPING	1	7:00:00	0:24:36	7:24:36	31:24:36	0	DAY 1
RUN	7	7:24:36	1:00:47	8:25:23	32:25:23	7	
IP	1	8:25:23	0:15:00	8:45:00	8:45:00	0	
RUN	22	8:45:00	3:11:02	11:56:02	11:56:02	22	
IS	1	11:56:02	0:30:00	12:30:00	12:30:00	0	
RUN	38	12:30:00	5:29:58	17:59:58	17:59:58	38	
IM	1	17:59:58	0:30:00	18:30:00	18:30:00	0	
RUN	24	18:30:00	3:28:24	21:58:24	21:58:24	24	
OFF	1	21:58:24	9:00:00	7:00:00	7:00:00	0	
RUN	9	7:00:00	1:18:09	8:18:09	8:18:09	9	DAY 2
KIRIM	1	8:18:09	0:01:32	8:19:41	8:19:41	0	
RUN	1	8:19:41	0:08:41	8:28:22	8:28:22	1	
IP	1	8:28:22	0:15:00	8:45:00	8:45:00	0	
RUN	22	8:45:00	3:11:02	11:56:02	11:56:02	22	
IS	1	11:56:02	0:30:00	12:30:00	12:30:00	0	
RUN	38	12:30:00	5:29:58	17:59:58	17:59:58	38	
IM	1	17:59:58	0:30:00	18:30:00	18:30:00	0	
RUN	24	18:30:00	3:28:24	21:58:24	21:58:24	24	
OFF	1	21:58:24	9:00:00	7:00:00	7:00:00	0	DAY 3
RUN	10	7:00:00	1:26:50	8:26:50	8:26:50	10	
IP	1	8:26:50	0:15:00	8:45:00	8:45:00	0	
RUN	5	8:45:00	0:43:25	9:28:25	9:28:25	5	
KIRIM	1	9:28:25	0:01:32	9:29:57	9:29:57	0	
RUN	17	9:29:57	2:27:37	11:57:34	11:57:34	17	
IS	1	11:57:34	0:30:00	12:30:00	12:30:00	0	
RUN	38	12:30:00	5:29:58	17:59:58	17:59:58	38	
IM	1	17:59:58	0:30:00	18:30:00	18:30:00	0	
RUN	24	18:30:00	3:28:24	21:58:24	21:58:24	24	DAY 4
OFF	1	21:58:24	9:00:00	7:00:00	7:00:00	0	
RUN	10	7:00:00	1:26:50	8:26:50	8:26:50	10	
IP	1	8:26:50	0:15:00	8:45:00	8:45:00	0	
RUN	11	8:45:00	1:35:31	10:20:31	10:20:31	11	
KIRIM	1	10:20:31	0:01:32	10:22:03	10:22:03	0	
RUN	11	10:22:03	1:35:31	11:57:34	11:57:34	11	
IS	1	11:57:34	0:30:00	12:30:00	12:30:00	0	
RUN	38	12:30:00	5:29:58	17:59:58	17:59:58	38	
IM	1	17:59:58	0:30:00	18:30:00	18:30:00	0	DAY 5
RUN	24	18:30:00	3:28:24	21:58:24	21:58:24	24	
OFF	1	21:58:24	9:00:00	7:00:00	7:00:00	0	
RUN	10	7:00:00	1:26:50	8:26:50	8:26:50	10	
IP	1	8:26:50	0:15:00	8:45:00	8:45:00	0	
RUN	17	8:45:00	2:27:37	11:12:37	11:12:37	17	
KIRIM	1	11:12:37	0:01:32	11:14:09	11:14:09	0	
RUN	5	11:14:09	0:43:25	11:57:34	11:57:34	5	
IS	1	11:57:34	0:30:00	12:30:00	12:30:00	0	
RUN	35	12:30:00	5:03:55	17:33:55	17:33:55	35	DAY 5
KIRIM	1	17:33:55	0:01:32	17:35:27	17:35:27	0	

Lampiran 4. Lanjutan

DEBUR 1								
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty		
RUN	4	8:19:41	0:09:44	8:29:25	8:29:25	4	4	DAY 2
IP	1	8:29:25	0:15:00	8:45:00	8:45:00	0	4	
RUN	80	8:45:00	3:14:40	11:59:40	11:59:40	80	84	
IS	1	11:59:40	0:30:00	12:30:00	12:30:00	0	84	
RUN	16	12:30:00	0:38:56	13:08:56	13:08:56	16	100	
KIRIM	1	13:08:56	0:01:32	13:10:28	13:10:28	0	100	
RUN	61	9:29:57	2:28:26	11:58:23	11:58:23	61	161	DAY 3
IS	1	11:58:23	0:30:00	12:30:00	12:30:00	0	161	
RUN	39	12:30:00	1:34:54	14:04:54	14:04:54	39	200	
KIRIM	1	14:04:54	0:01:32	14:06:26	14:06:26	0	200	
RUN	40	10:22:03	1:37:20	11:59:23	11:59:23	40	240	DAY 4
IS	1	11:59:23	0:30:00	12:30:00	12:30:00	0	240	
RUN	60	12:30:00	2:26:00	14:56:00	14:56:00	60	300	
KIRIM	1	14:56:00	0:01:32	14:57:32	14:57:32	0	300	
RUN	18	11:14:09	0:43:48	11:57:57	11:57:57	18	318	DAY 5
IS	1	11:57:57	0:30:00	12:30:00	12:30:00	0	318	
RUN	82	12:30:00	3:19:32	15:49:32	15:49:32	82	400	
KIRIM	1	15:49:32	0:01:32	15:51:04	15:51:04	0	400	
RUN	10	17:35:27	0:24:20	17:59:47	17:59:47	10	410	DAY 5
IM	1	17:59:47	0:30:00	18:30:00	18:30:00	0	410	
RUN	30	18:30:00	1:13:00	19:43:00	19:43:00	30	440	
KIRIM	1	19:43:00	0:01:32	19:44:32	19:44:32	0	440	

Lampiran 4. Lanjutan

FACING 2							
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty	
SETUP CLAMPING	1	13:10:28	0:04:24	13:14:52	13:14:52	0	DAY 2
RUN	31	13:14:52	4:36:25	17:51:17	17:51:17	31	
IM	1	17:51:17	0:30:00	18:30:00	18:30:00	0	
RUN	23	18:30:00	3:25:05	21:55:05	21:55:05	23	
OFF	1	21:55:05	9:00:00	7:00:00	7:00:00	0	
RUN	10	7:00:00	1:29:10	8:29:10	8:29:10	10	DAY 3
IP	1	8:29:10	0:15:00	8:45:00	8:45:00	0	
RUN	21	8:45:00	3:07:15	11:52:15	11:52:15	21	
IS	1	11:52:15	0:30:00	12:30:00	12:30:00	0	
RUN	15	12:30:00	2:13:45	14:43:45	14:43:45	15	
KIRIM	1	14:43:45	0:01:32	14:45:17	14:45:17	0	
RUN	21	14:45:17	3:07:15	17:52:32	17:52:32	21	
IM	1	17:52:32	0:30:00	18:30:00	18:30:00	0	
RUN	23	18:30:00	3:25:05	21:55:05	21:55:05	23	
OFF	1	21:55:05	9:00:00	7:00:00	7:00:00	0	
RUN	10	7:00:00	1:29:10	8:29:10	8:29:10	10	DAY 4
IP	1	8:29:10	0:15:00	8:45:00	8:45:00	0	
RUN	21	8:45:00	3:07:15	11:52:15	11:52:15	21	
IS	1	11:52:15	0:30:00	12:30:00	12:30:00	0	
RUN	25	12:30:00	3:42:55	16:12:55	16:12:55	25	
KIRIM	1	16:12:55	0:01:32	16:14:27	16:14:27	0	
RUN	11	16:14:27	1:38:05	17:52:32	17:52:32	11	
IM	1	17:52:32	0:30:00	18:30:00	18:30:00	0	
RUN	23	18:30:00	3:25:05	21:55:05	21:55:05	23	
OFF	1	21:55:05	9:00:00	7:00:00	7:00:00	0	
RUN	10	7:00:00	1:29:10	8:29:10	8:29:10	10	DAY 5
IP	1	8:29:10	0:15:00	8:45:00	8:45:00	0	
RUN	21	8:45:00	3:07:15	11:52:15	11:52:15	21	
IS	1	11:52:15	0:30:00	12:30:00	12:30:00	0	
RUN	35	12:30:00	5:12:05	17:42:05	17:42:05	35	
KIRIM	1	17:42:05	0:01:32	17:43:37	17:43:37	0	
RUN	1	17:43:37	0:08:55	17:52:32	17:52:32	1	
IM	1	17:52:32	0:30:00	18:30:00	18:30:00	0	
RUN	23	18:30:00	3:25:05	21:55:05	21:55:05	23	
OFF	1	21:55:05	9:00:00	7:00:00	7:00:00	0	
RUN	10	7:00:00	1:29:10	8:29:10	8:29:10	10	DAY 6
IP	1	8:29:10	0:15:00	8:45:00	8:45:00	0	
RUN	21	8:45:00	3:07:15	11:52:15	11:52:15	21	
IS	1	11:52:15	0:30:00	12:30:00	12:30:00	0	
RUN	37	12:30:00	5:29:55	17:59:55	17:59:55	37	
IM	1	17:59:55	0:30:00	18:30:00	18:30:00	0	
RUN	8	18:30:00	1:11:20	19:41:20	19:41:20	8	
KIRIM	1	19:41:20	0:01:32	19:42:52	19:42:52	0	
RUN	15	19:42:52	2:13:45	21:56:37	21:56:37	15	
OFF	1	21:56:37	9:00:00	7:00:00	7:00:00	0	
RUN	10	7:00:00	1:29:10	8:29:10	8:29:10	10	DAY 7
IP	1	8:29:10	0:15:00	8:45:00	8:45:00	0	
RUN	15	8:45:00	2:13:45	10:58:45	10:58:45	15	
KIRIM	1	10:58:45	0:01:32	11:00:17	11:00:17	0	

Lampiran 4. Lanjutan

DEBUR 2								
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty		
RUN	79	14:45:17	3:13:33	17:58:50	17:58:50	79	79	DAY 3
IM	1	17:58:50	0:30:00	18:30:00	18:30:00	0	79	
RUN	21	18:30:00	0:51:27	19:21:27	19:21:27	21	100	
KIRIM	1	19:21:27	0:01:32	19:22:59	19:22:59	0	100	
RUN	43	16:14:27	1:45:21	17:59:48	17:59:48	43	143	DAY 4
IM	1	17:59:48	0:30:00	18:30:00	18:30:00	0	143	
RUN	57	18:30:00	2:19:39	20:49:39	20:49:39	57	200	
KIRIM	1	20:49:39	0:01:32	20:51:11	20:51:11	0	200	
RUN	6	17:43:37	0:14:42	17:58:19	17:58:19	6	206	DAY 5
IM	1	17:58:19	0:30:00	18:30:00	18:30:00	0	206	
RUN	85	18:30:00	3:28:15	21:58:15	21:58:15	85	291	
OFF	1	21:58:15	9:00:00	7:00:00	7:00:00	0	291	
RUN	9	7:00:00	0:22:03	7:22:03	7:22:03	9	300	DAY 6
KIRIM	1	7:22:03	0:01:32	7:23:35	7:23:35	0	300	
RUN	55	19:42:52	2:14:45	21:57:37	21:57:37	55	355	DAY 6
OFF	1	21:57:37	9:00:00	7:00:00	7:00:00	0	355	
RUN	36	7:00:00	1:28:12	8:28:12	8:28:12	36	391	DAY 7
IP	1	8:28:12	0:15:00	8:45:00	8:45:00	0	391	
RUN	9	8:45:00	0:22:03	9:07:03	9:07:03	9	400	
KIRIM	1	9:07:03	0:01:32	9:08:35	9:08:35	0	400	
RUN	24	11:00:17	0:58:48	11:59:05	11:59:05	24	424	DAY 7
IS	1	11:59:05	0:30:00	12:30:00	12:30:00	0	424	
RUN	16	12:30:00	0:39:12	13:09:12	13:09:12	16	440	
KIRIM	1	13:09:12	0:01:32	13:10:44	13:10:44	0	440	

Lampiran 4. Lanjutan

STEP								
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty		
SETUP CLAMPING	1	19:22:59	0:02:54	19:25:53	19:25:53	0		
RUN	18	19:25:53	2:33:54	21:59:47	21:59:47	18	18	DAY 3
OFF	1	21:59:47	9:00:00	7:00:00	7:00:00	0	18	
RUN	10	7:00:00	1:25:30	8:25:30	8:25:30	10	28	
IP	1	8:25:30	0:15:00	8:45:00	8:45:00	0	28	
RUN	22	8:45:00	3:08:06	11:53:06	11:53:06	22	50	
IS	1	11:53:06	0:30:00	12:30:00	12:30:00	0	50	
RUN	38	12:30:00	5:24:54	17:54:54	17:54:54	38	88	DAY 4
IM	1	17:54:54	0:30:00	18:30:00	18:30:00	0	88	
RUN	12	18:30:00	1:42:36	20:12:36	20:12:36	12	100	
KIRIM	1	20:12:36	0:01:32	20:14:08	20:14:08	0	100	
RUN	8	20:51:11	1:08:24	21:59:35	21:59:35	8	108	
OFF	1	21:59:35	9:00:00	7:00:00	7:00:00	0	108	
RUN	10	7:00:00	1:25:30	8:25:30	8:25:30	10	118	
IP	1	8:25:30	0:15:00	8:45:00	8:45:00	0	118	
RUN	22	8:45:00	3:08:06	11:53:06	11:53:06	22	140	DAY 5
IS	1	11:53:06	0:30:00	12:30:00	12:30:00	0	140	
RUN	38	12:30:00	5:24:54	17:54:54	17:54:54	38	178	
IM	1	17:54:54	0:30:00	18:30:00	18:30:00	0	178	
RUN	22	18:30:00	3:08:06	21:38:06	21:38:06	22	200	
KIRIM	1	21:38:06	0:01:32	21:39:38	21:39:38	0	200	
RUN	7	7:23:35	0:59:51	8:23:26	8:23:26	7	207	
IP	1	8:23:26	0:15:00	8:45:00	8:45:00	0	207	
RUN	22	8:45:00	3:08:06	11:53:06	11:53:06	22	229	DAY 6
IS	1	11:53:06	0:30:00	12:30:00	12:30:00	0	229	
RUN	38	12:30:00	5:24:54	17:54:54	17:54:54	38	267	
IM	1	17:54:54	0:30:00	18:30:00	18:30:00	0	267	
RUN	24	18:30:00	3:25:12	21:55:12	21:55:12	24	291	
OFF	1	21:55:12	9:00:00	7:00:00	7:00:00	0	291	
RUN	9	7:00:00	1:16:57	8:16:57	8:16:57	9	300	DAY 7
KIRIM	1	8:16:57	0:01:32	8:18:29	8:18:29	0	300	
RUN	20	9:08:35	2:51:00	11:59:35	11:59:35	20	320	
IS	1	11:59:35	0:30:00	12:30:00	12:30:00	0	320	DAY 7
RUN	38	12:30:00	5:24:54	17:54:54	17:54:54	38	358	
IM	1	17:54:54	0:30:00	18:30:00	18:30:00	0	358	
RUN	24	18:30:00	3:25:12	21:55:12	21:55:12	24	382	
OFF	1	21:55:12	9:00:00	7:00:00	7:00:00	0	382	
RUN	10	7:00:00	1:25:30	8:25:30	8:25:30	10	392	
IP	1	8:25:30	0:15:00	8:45:00	8:45:00	0	392	
RUN	8	8:45:00	1:08:24	9:53:24	9:53:24	8	400	
KIRIM	1	9:53:24	0:01:32	9:54:56	9:54:56	0	400	DAY 8
RUN	14	9:54:56	1:59:42	11:54:38	11:54:38	14	414	
IS	1	11:54:38	0:30:00	12:30:00	12:30:00	0	414	
RUN	26	12:30:00	3:42:18	16:12:18	16:12:18	26	440	
KIRIM	1	16:12:18	0:01:32	16:13:50	16:13:50	0	440	

Lampiran 4. Lanjutan

DEBUR 3									
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty			
RUN	25	20:14:08	1:42:05	21:56:13	21:56:13	25	25	DAY 4	
OFF	1	21:56:13	9:00:00	7:00:00	7:00:00	0	25		
RUN	22	7:00:00	1:29:50	8:29:50	8:29:50	22	47	DAY 5	
IP	1	8:29:50	0:15:00	8:45:00	8:45:00	0	47		
RUN	47	8:45:00	3:11:55	11:56:55	11:56:55	47	94		
IS	1	11:56:55	0:30:00	12:30:00	12:30:00	0	94		
RUN	6	12:30:00	0:24:30	12:54:30	12:54:30	6	100		
KIRIM	1	12:54:30	0:01:32	12:56:02	12:56:02	0	100		
RUN	4	21:39:38	0:16:20	21:55:58	21:55:58	4	104	DAY 5	
OFF	1	21:55:58	9:00:00	7:00:00	7:00:00	0	104		
RUN	22	7:00:00	1:29:50	8:29:50	8:29:50	22	126	DAY 6	
IP	1	8:29:50	0:15:00	8:45:00	8:45:00	0	126		
RUN	47	8:45:00	3:11:55	11:56:55	11:56:55	47	173		
IS	1	11:56:55	0:30:00	12:30:00	12:30:00	0	173		
RUN	27	12:30:00	1:50:15	14:20:15	14:20:15	27	200		
KIRIM	1	14:20:15	0:01:32	14:21:47	14:21:47	0	200		
RUN	2	8:18:29	0:08:10	8:26:39	8:26:39	2	202	DAY 7	
IP	1	8:26:39	0:15:00	8:45:00	8:45:00	0	202		
RUN	47	8:45:00	3:11:55	11:56:55	11:56:55	47	249		
IS	1	11:56:55	0:30:00	12:30:00	12:30:00	0	249		
RUN	51	12:30:00	3:28:15	15:58:15	15:58:15	51	300		
KIRIM	1	15:58:15	0:01:32	15:59:47	15:59:47	0	300		
RUN	30	9:54:56	2:02:30	11:57:26	11:57:26	30	330	DAY 8	
IS	1	11:57:26	0:30:00	12:30:00	12:30:00	0	330		
RUN	70	12:30:00	4:45:50	17:15:50	17:15:50	70	400		
KIRIM	1	17:15:50	0:01:32	17:17:22	17:17:22	0	400		
RUN	10	17:17:22	0:40:50	17:58:12	17:58:12	10	410		
IM	1	17:58:12	0:30:00	18:30:00	18:30:00	0	410		
RUN	30	18:30:00	2:02:30	20:32:30	20:32:30	30	440		
KIRIM	1	20:32:30	0:01:32	20:34:02	20:34:02	0	440		

Lampiran 4. Lanjutan

DRILLING							
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty	
RUN	29	12:56:02	5:02:34	17:58:36	17:58:36	29	DAY 5
IM	1	17:58:36	0:30:00	18:30:00	18:30:00	0	
RUN	20	18:30:00	3:28:40	21:58:40	21:58:40	20	
OFF	1	21:58:40	9:00:00	7:00:00	7:00:00	0	
RUN	8	7:00:00	1:23:28	8:23:28	8:23:28	8	DAY 6
IP	1	8:23:28	0:15:00	8:45:00	8:45:00	0	
RUN	18	8:45:00	3:07:48	11:52:48	11:52:48	18	
IS	1	11:52:48	0:30:00	12:30:00	12:30:00	0	
RUN	25	12:30:00	4:20:50	16:50:50	16:50:50	25	
KIRIM	1	16:50:50	0:01:32	16:52:22	16:52:22	0	
RUN	6	16:52:22	1:02:36	17:54:58	17:54:58	6	
IM	1	17:54:58	0:30:00	18:30:00	18:30:00	0	
RUN	20	18:30:00	3:28:40	21:58:40	21:58:40	20	
OFF	1	21:58:40	9:00:00	7:00:00	7:00:00	0	
RUN	8	7:00:00	1:23:28	8:23:28	8:23:28	8	DAY 7
IP	1	8:23:28	0:15:00	8:45:00	8:45:00	0	
RUN	18	8:45:00	3:07:48	11:52:48	11:52:48	18	
IS	1	11:52:48	0:30:00	12:30:00	12:30:00	0	
RUN	31	12:30:00	5:23:26	17:53:26	17:53:26	31	
IM	1	17:53:26	0:30:00	18:30:00	18:30:00	0	
RUN	17	18:30:00	2:57:22	21:27:22	21:27:22	17	
KIRIM	1	21:27:22	0:01:32	21:28:54	21:28:54	0	
RUN	2	21:28:54	0:20:52	21:49:46	21:49:46	2	
OFF	1	21:49:46	9:00:00	7:00:00	7:00:00	0	
RUN	8	7:00:00	1:23:28	8:23:28	8:23:28	8	DAY 8
IP	1	8:23:28	0:15:00	8:45:00	8:45:00	0	
RUN	18	8:45:00	3:07:48	11:52:48	11:52:48	18	
IS	1	11:52:48	0:30:00	12:30:00	12:30:00	0	
RUN	31	12:30:00	5:23:26	17:53:26	17:53:26	31	
IM	1	17:53:26	0:30:00	18:30:00	18:30:00	0	
RUN	20	18:30:00	3:28:40	21:58:40	21:58:40	20	
OFF	1	21:58:40	9:00:00	7:00:00	7:00:00	0	
RUN	8	7:00:00	1:23:28	8:23:28	8:23:28	8	
IP	1	8:23:28	0:15:00	8:45:00	8:45:00	0	
RUN	13	8:45:00	2:15:38	11:00:38	11:00:38	13	DAY 9
KIRIM	1	11:00:38	0:01:32	11:02:10	11:02:10	0	
RUN	5	11:02:10	0:52:10	11:54:20	11:54:20	5	
IS	1	11:54:20	0:30:00	12:30:00	12:30:00	0	
RUN	31	12:30:00	5:23:26	17:53:26	17:53:26	31	
IM	1	17:53:26	0:30:00	18:30:00	18:30:00	0	
RUN	20	18:30:00	3:28:40	21:58:40	21:58:40	20	
OFF	1	21:58:40	9:00:00	7:00:00	7:00:00	0	
RUN	8	7:00:00	1:23:28	8:23:28	8:23:28	8	
IP	1	8:23:28	0:15:00	8:45:00	8:45:00	0	
RUN	18	8:45:00	3:07:48	11:52:48	11:52:48	18	DAY 10
IS	1	11:52:48	0:30:00	12:30:00	12:30:00	0	
RUN	18	12:30:00	3:07:48	15:37:48	15:37:48	18	
KIRIM	1	15:37:48	0:01:32	15:39:20	15:39:20	0	
RUN	13	15:39:20	2:15:38	17:54:58	17:54:58	13	
IM	1	17:54:58	0:30:00	18:30:00	18:30:00	0	
RUN	20	18:30:00	3:28:40	21:58:40	21:58:40	20	
OFF	1	21:58:40	9:00:00	7:00:00	7:00:00	0	
RUN	7	7:00:00	1:13:02	8:13:02	8:13:02	7	
KIRIM		8:13:02	0:00:00	8:13:02	8:13:02	0	DAY 11

Lampiran 4. Lanjutan

CHAMFERING								
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty		
RUN	47	16:52:22	1:06:35	17:58:57	17:58:57	47	47	DAY 6
IM	1	17:58:57	0:30:00	18:30:00	18:30:00	0	47	
RUN	53	18:30:00	1:15:05	19:45:05	19:45:05	53	100	
KIRIM	1	19:45:05	0:01:32	19:46:37	19:46:37	0	100	
RUN	21	21:28:54	0:29:45	21:58:39	21:58:39	21	121	DAY 7
OFF	1	21:58:39	9:00:00	7:00:00	7:00:00	0	121	
RUN	63	7:00:00	1:29:15	8:29:15	8:29:15	63	184	DAY 8
IP	1	8:29:15	0:15:00	8:45:00	8:45:00	0	184	
RUN	16	8:45:00	0:22:40	9:07:40	9:07:40	16	200	
KIRIM	1	9:07:40	0:01:32	9:09:12	9:09:12	0	200	
RUN	40	11:02:10	0:56:40	11:58:50	11:58:50	40	240	DAY 9
IS	1	11:58:50	0:30:00	12:30:00	12:30:00	0	240	
RUN	60	12:30:00	1:25:00	13:55:00	13:55:00	60	300	
KIRIM	1	13:55:00	0:01:32	13:56:32	13:56:32	0	300	
RUN	99	15:39:20	2:20:15	17:59:35	17:59:35	99	399	DAY 10
IM	1	17:59:35	0:30:00	18:30:00	18:30:00	0	399	
RUN	1	18:30:00	0:01:25	18:31:25	18:31:25	1	400	
KIRIM	1	18:31:25	0:01:32	18:32:57	18:32:57	0	400	
RUN	40	8:13:02	0:56:40	9:09:42	9:09:42	40	440	DAY 11
KIRIM	1	9:09:42	0:01:32	9:11:14	9:11:14	0	440	

Lampiran 4. Lanjutan

WELDING 1								
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty		
RUN	18	19:46:37	2:09:18	21:55:55	21:55:55	18	18	DAY 6
OFF	1	21:55:55	9:00:00	7:00:00	7:00:00	0	18	
RUN	12	7:00:00	1:26:12	8:26:12	8:26:12	12	30	DAY 7
IP	1	8:26:12	0:15:00	8:45:00	8:45:00	0	30	
RUN	27	8:45:00	3:13:57	11:58:57	11:58:57	27	57	
IS	1	11:58:57	0:30:00	12:30:00	12:30:00	0	57	
RUN	43	12:30:00	5:08:53	17:38:53	17:38:53	43	100	
KIRIM	1	17:38:53	0:01:32	17:40:25	17:40:25	0	100	
RUN	23	9:09:12	2:45:13	11:54:25	11:54:25	23	123	DAY 8
IS	1	11:54:25	0:30:00	12:30:00	12:30:00	0	123	
RUN	45	12:30:00	5:23:15	17:53:15	17:53:15	45	168	
IM	1	17:53:15	0:30:00	18:30:00	18:30:00	0	168	
RUN	29	18:30:00	3:28:19	21:58:19	21:58:19	29	197	
OFF	1	21:58:19	9:00:00	7:00:00	7:00:00	0	197	DAY 9
RUN	3	7:00:00	0:21:33	7:21:33	7:21:33	3	200	
KIRIM	1	7:21:33	0:01:32	7:23:05	7:23:05	0	200	
RUN	33	13:56:32	3:57:03	17:53:35	17:53:35	33	233	DAY 9
IM	1	17:53:35	0:30:00	18:30:00	18:30:00	0	233	
RUN	29	18:30:00	3:28:19	21:58:19	21:58:19	29	262	
OFF	1	21:58:19	9:00:00	7:00:00	7:00:00	0	262	
RUN	12	7:00:00	1:26:12	8:26:12	8:26:12	12	274	DAY 10
IP	1	8:26:12	0:15:00	8:45:00	8:45:00	0	274	
RUN	26	8:45:00	3:06:46	11:51:46	11:51:46	26	300	
KIRIM	1	11:51:46	0:01:32	11:53:18	11:53:18	0	300	
RUN	28	18:32:57	3:21:08	21:54:05	21:54:05	28	328	DAY 10
OFF	1	21:54:05	9:00:00	7:00:00	7:00:00	0	328	
RUN	12	7:00:00	1:26:12	8:26:12	8:26:12	12	340	DAY 11
IP	1	8:26:12	0:15:00	8:45:00	8:45:00	0	340	
RUN	27	8:45:00	3:13:57	11:58:57	11:58:57	27	367	
IS	1	11:58:57	0:30:00	12:30:00	12:30:00	0	367	
RUN	33	12:30:00	3:57:03	16:27:03	16:27:03	33	400	
KIRIM	1	16:27:03	0:01:32	16:28:35	16:28:35	0	400	
RUN	12	16:28:35	1:26:12	17:54:47	17:54:47	12	412	
IM	1	17:54:47	0:30:00	18:30:00	18:30:00	0	412	
RUN	28	18:30:00	3:21:08	21:51:08	21:51:08	28	440	
KIRIM	1	21:51:08	0:01:32	21:52:40	21:52:40	0	440	

Lampiran 4. Lanjutan

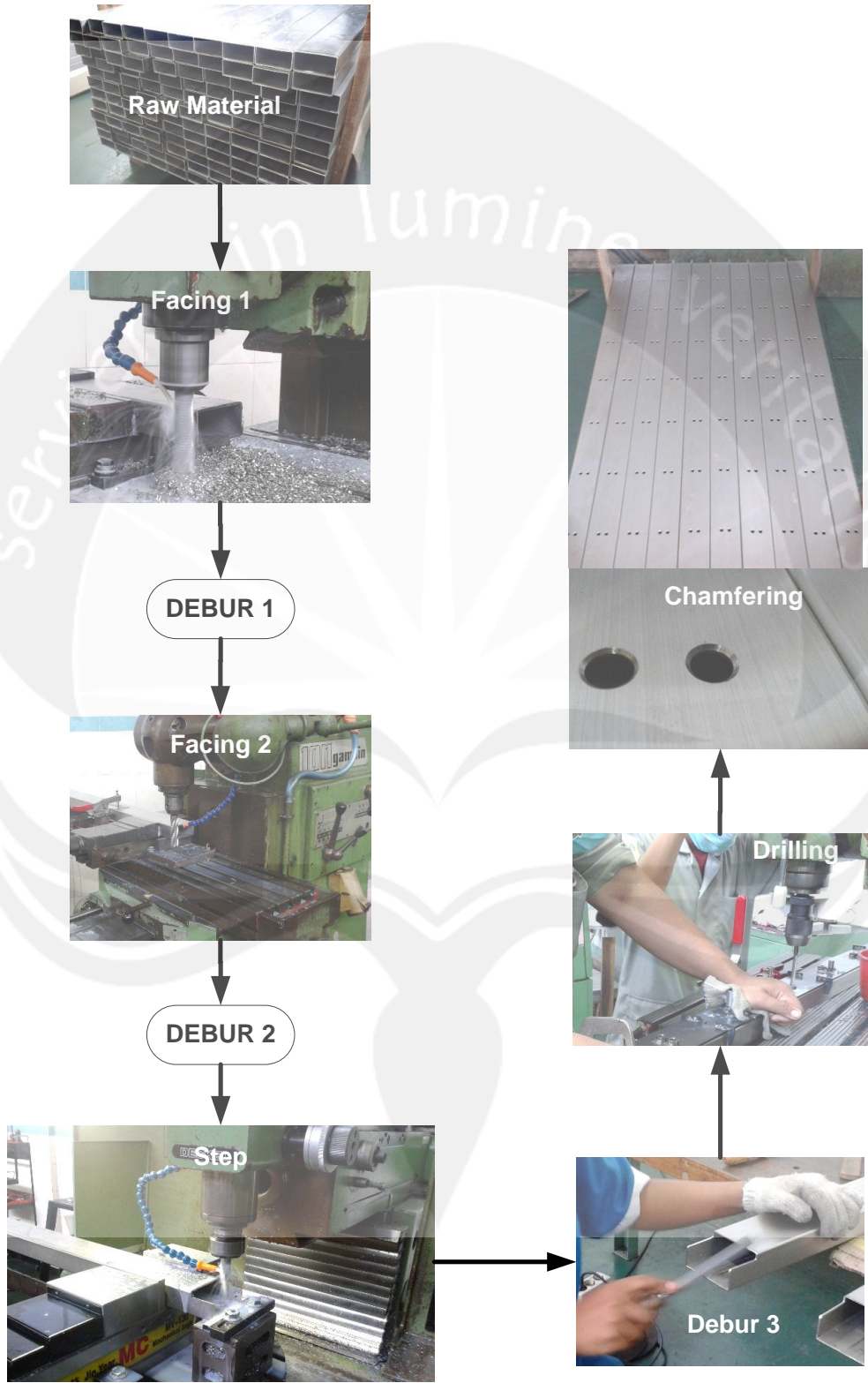
WELDING 2							
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty	
RUN	1	17:40:25	0:12:26	17:52:51	17:52:51	1	DAY 7
IM	1	17:52:51	0:30:00	18:30:00	18:30:00	0	
RUN	16	18:30:00	3:18:56	21:48:56	21:48:56	16	
OFF	1	21:48:56	9:00:00	7:00:00	7:00:00	0	
RUN	7	7:00:00	1:27:02	8:27:02	8:27:02	7	DAY 8
IP	1	8:27:02	0:15:00	8:45:00	8:45:00	0	
RUN	15	8:45:00	3:06:30	11:51:30	11:51:30	15	
IS	1	11:51:30	0:30:00	12:30:00	12:30:00	0	
RUN	26	12:30:00	5:23:16	17:53:16	17:53:16	26	DAY 9
IM	1	17:53:16	0:30:00	18:30:00	18:30:00	0	
RUN	16	18:30:00	3:18:56	21:48:56	21:48:56	16	
OFF	1	21:48:56	9:00:00	7:00:00	7:00:00	0	
RUN	7	7:00:00	1:27:02	8:27:02	8:27:02	7	DAY 10
IP	1	8:27:02	0:15:00	8:45:00	8:45:00	0	
RUN	12	8:45:00	2:29:12	11:14:12	11:14:12	12	
KIRIM	1	11:14:12	0:01:32	11:15:44	11:15:44	0	
RUN	3	11:15:44	0:37:18	11:53:02	11:53:02	3	DAY 11
IS	1	11:53:02	0:30:00	12:30:00	12:30:00	0	
RUN	26	12:30:00	5:23:16	17:53:16	17:53:16	26	
IM	1	17:53:16	0:30:00	18:30:00	18:30:00	0	
RUN	16	18:30:00	3:18:56	21:48:56	21:48:56	16	DAY 12
OFF	1	21:48:56	9:00:00	7:00:00	7:00:00	0	
RUN	7	7:00:00	1:27:02	8:27:02	8:27:02	7	
IP	1	8:27:02	0:15:00	8:45:00	8:45:00	0	
RUN	15	8:45:00	3:06:30	11:51:30	11:51:30	15	DAY 13
IS	1	11:51:30	0:30:00	12:30:00	12:30:00	0	
RUN	26	12:30:00	5:23:16	17:53:16	17:53:16	26	
IM	1	17:53:16	0:30:00	18:30:00	18:30:00	0	
RUN	16	18:30:00	3:18:56	21:48:56	21:48:56	16	DAY 14
OFF	1	21:48:56	9:00:00	7:00:00	7:00:00	0	
RUN	7	7:00:00	1:27:02	8:27:02	8:27:02	7	
IP	1	8:27:02	0:15:00	8:45:00	8:45:00	0	
RUN	15	8:45:00	3:06:30	11:51:30	11:51:30	15	DAY 15
IS	1	11:51:30	0:30:00	12:30:00	12:30:00	0	
RUN	5	12:30:00	1:02:10	13:32:10	13:32:10	5	
KIRIM	1	13:32:10	0:01:32	13:33:42	13:33:42	0	
RUN	21	13:33:42	4:21:06	17:54:48	17:54:48	21	DAY 16
IM	1	17:54:48	0:30:00	18:30:00	18:30:00	0	
RUN	16	18:30:00	3:18:56	21:48:56	21:48:56	16	
OFF	1	21:48:56	9:00:00	7:00:00	7:00:00	0	
RUN	7	7:00:00	1:27:02	8:27:02	8:27:02	7	DAY 17
IP	1	8:27:02	0:15:00	8:45:00	8:45:00	0	
RUN	15	8:45:00	3:06:30	11:51:30	11:51:30	15	
IS	1	11:51:30	0:30:00	12:30:00	12:30:00	0	
RUN	26	12:30:00	5:23:16	17:53:16	17:53:16	26	DAY 18
IM	1	17:53:16	0:30:00	18:30:00	18:30:00	0	
RUN	15	18:30:00	3:06:30	21:36:30	21:36:30	15	
KIRIM	1	21:36:30	0:01:32	21:38:02	21:38:02	0	
RUN	1	21:38:02	0:12:26	21:50:28	21:50:28	1	DAY 19
OFF	1	21:50:28	9:00:00	7:00:00	7:00:00	0	
RUN	7	7:00:00	1:27:02	8:27:02	8:27:02	7	
IP	1	8:27:02	0:15:00	8:45:00	8:45:00	0	
RUN	15	8:45:00	3:06:30	11:51:30	11:51:30	15	DAY 20
IS	1	11:51:30	0:30:00	12:30:00	12:30:00	0	
RUN	17	12:30:00	3:31:22	16:01:22	16:01:22	17	
KIRIM	1	16:01:22	0:01:32	16:02:54	16:02:54	0	

Lampiran 4. Lanjutan

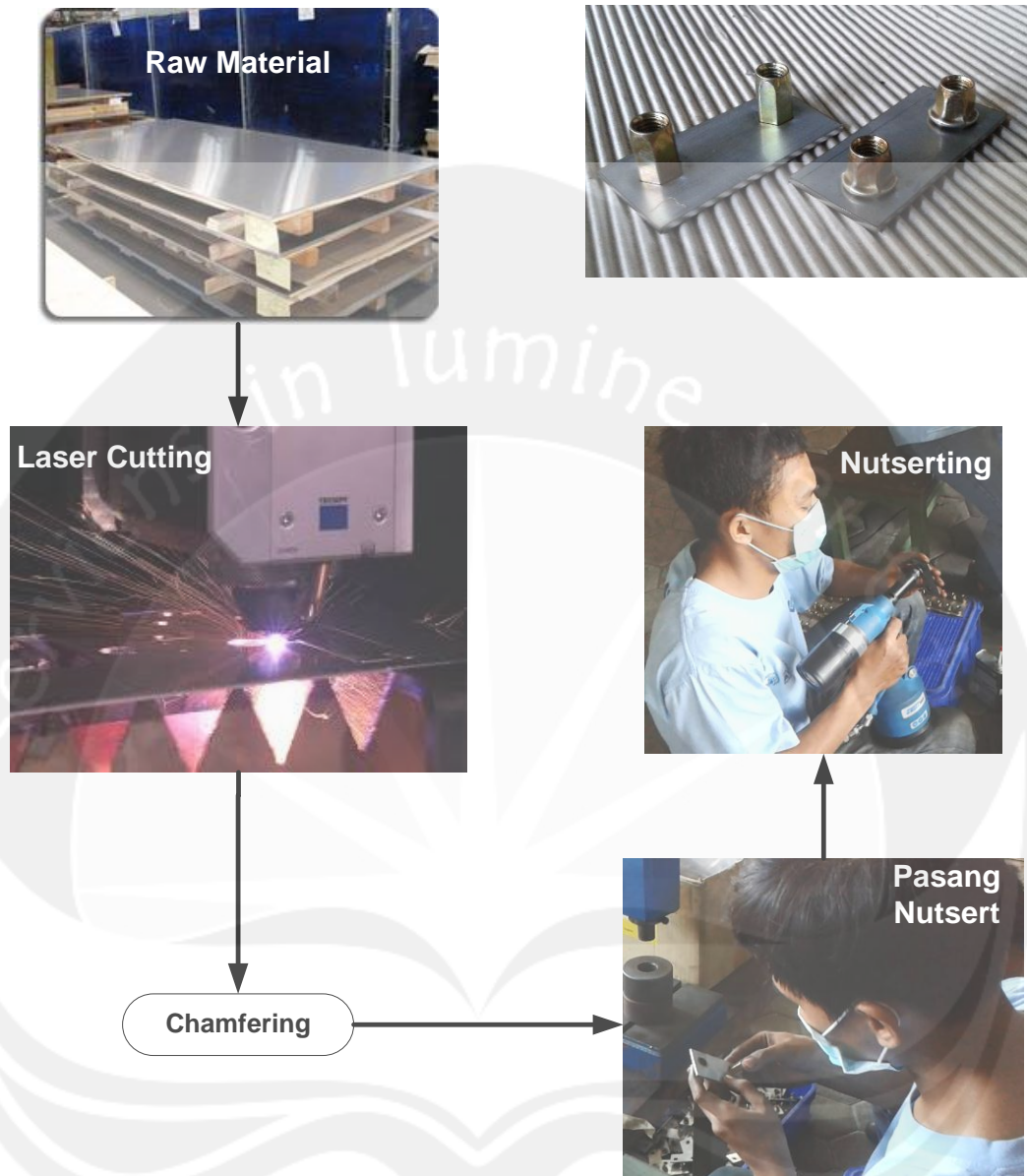
FINISHING									
Activity	jumlah	mulai	lama	selesai	selesai(Jam berjalan)	Qty			
RUN	4	11:15:44	0:36:04	11:51:48	11:51:48	4	4	DAY 9	
IS	1	11:51:48	0:30:00	12:30:00	12:30:00	0	4		
RUN	36	12:30:00	5:24:36	17:54:36	17:54:36	36	40		
IM	1	17:54:36	0:30:00	18:30:00	18:30:00	0	40		
RUN	23	18:30:00	3:27:23	21:57:23	21:57:23	23	63		
OFF	1	21:57:23	9:00:00	7:00:00	7:00:00	0	63		
RUN	9	7:00:00	1:21:09	8:21:09	8:21:09	9	72	DAY 10	
IP	1	8:21:09	0:15:00	8:45:00	8:45:00	0	72		
RUN	21	8:45:00	3:09:21	11:54:21	11:54:21	21	93		
IS	1	11:54:21	0:30:00	12:30:00	12:30:00	0	93		
RUN	7	12:30:00	1:03:07	13:33:07	13:33:07	7	100		
KIRIM	1	13:33:07	0:01:32	13:34:39	13:34:39	0	100		
RUN	13	19:58:34	1:57:13	21:55:47	21:55:47	13	113	DAY 10	
OFF	1	21:55:47	9:00:00	7:00:00	7:00:00	0	113		
RUN	9	7:00:00	1:21:09	8:21:09	8:21:09	9	122	DAY 11	
IP	1	8:21:09	0:15:00	8:45:00	8:45:00	0	122		
RUN	21	8:45:00	3:09:21	11:54:21	11:54:21	21	143		
IS	1	11:54:21	0:30:00	12:30:00	12:30:00	0	143		
RUN	36	12:30:00	5:24:36	17:54:36	17:54:36	36	179		
IM	1	17:54:36	0:30:00	18:30:00	18:30:00	0	179		
RUN	21	18:30:00	3:09:21	21:39:21	21:39:21	21	200		
KIRIM	1	21:39:21	0:01:32	21:40:53	21:40:53	0	200		
RUN	29	13:33:42	4:21:29	17:55:11	17:55:11	29	229	DAY 12	
IM	1	17:55:11	0:30:00	18:30:00	18:30:00	0	229		
RUN	23	18:30:00	3:27:23	21:57:23	21:57:23	23	252		
OFF	1	21:57:23	9:00:00	7:00:00	7:00:00	0	252	DAY 13	
RUN	9	7:00:00	1:21:09	8:21:09	8:21:09	9	261		
IP	1	8:21:09	0:15:00	8:45:00	8:45:00	0	261		
RUN	21	8:45:00	3:09:21	11:54:21	11:54:21	21	282		
IS	1	11:54:21	0:30:00	12:30:00	12:30:00	0	282		
RUN	18	12:30:00	2:42:18	15:12:18	15:12:18	18	300		
KIRIM	1	15:12:18	0:01:32	15:13:50	15:13:50	0	300		
RUN	2	21:38:02	0:18:02	21:56:04	21:56:04	2	302	DAY 13	
OFF	1	21:56:04	9:00:00	7:00:00	7:00:00	0	302		
RUN	9	7:00:00	1:21:09	8:21:09	8:21:09	9	311	DAY 14	
IP	1	8:21:09	0:15:00	8:45:00	8:45:00	0	311		
RUN	21	8:45:00	3:09:21	11:54:21	11:54:21	21	332		
IS	1	11:54:21	0:30:00	12:30:00	12:30:00	0	332		
RUN	36	12:30:00	5:24:36	17:54:36	17:54:36	36	368		
IM	1	17:54:36	0:30:00	18:30:00	18:30:00	0	368		
RUN	23	18:30:00	3:27:23	21:57:23	21:57:23	23	391		
OFF	1	21:57:23	9:00:00	7:00:00	7:00:00	0	391		
RUN	9	7:00:00	1:21:09	8:21:09	8:21:09	9	400	DAY 15	
KIRIM	1	8:21:09	0:01:32	8:22:41	8:22:41	0	400		
IP	1	8:22:41	0:15:00	8:45:00	8:45:00	0	400		
RUN	21	8:45:00	3:09:21	11:54:21	11:54:21	21	421		
IS	1	11:54:21	0:30:00	12:30:00	12:30:00	0	421		
RUN	19	12:30:00	2:51:19	15:21:19	15:21:19	19	440		
KIRIM	1	15:21:19	0:01:32	15:22:51	15:22:51	0	440		

Lampiran 5. Alur Proses Produksi

Alur proses produksi pipa



Alur proses produksi Cover 1



Alur produksi cover 2

